



IFWO

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/660,194

DATE: 08/30/2004
TIME: 12:32:38

Input Set : N:\Crf3\RULE60\10660194.raw
Output Set: N:\CRF4\08302004\J660194.raw

1 <110> APPLICANT: FRANKEL, Fred R
2 PORTNOY, Daniel A.
3 <120> TITLE OF INVENTION: ISOLATED NUCLEIC ACIDS COMPRISING LISTERIA DAL AND DAT GENES
4 <130> FILE REFERENCE: 053893-5011-02
5 <140> CURRENT APPLICATION NUMBER: US/10/660,194
6 <141> CURRENT FILING DATE: 2003-09-11
7 <150> PRIOR APPLICATION NUMBER: US/10/136,253
8 <151> PRIOR FILING DATE: 2002-05-01
9 <150> PRIOR APPLICATION NUMBER: 09/520,207
10 <151> PRIOR FILING DATE: 2000-03-07
11 <150> PRIOR APPLICATION NUMBER: PCT/US98/24357
12 <151> PRIOR FILING DATE: 1998-11-13
13 <150> PRIOR APPLICATION NUMBER: 08/972,902
14 <151> PRIOR FILING DATE: 1997-11-18
15 <160> NUMBER OF SEQ ID NOS: 9
16 <170> SOFTWARE: PatentIn version 3.1
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 1107
20 <212> TYPE: DNA
21 <213> ORGANISM: Listeria monocytogenes
22 <400> SEQUENCE: 1
23 atggtgacag gctggcatcg tccaacatgg attgaaatag accgcgcagc aattcgcgaa 60
24 aatataaaaa atgaacaaaa taaactcccg gaaagtgtcg acttatgggc agtagtcaaa 120
25 gctaattgcat atggtcacg aattatcgaa gttgctagga cggcgaaaaga agctggagca 180
26 aaaggtttct gcgtagccat tttagatgag gcaactggctc ttagagaagc tggatttcaa 240
27 gatgacttta ttcttgtgct tgggtgcaacc agaaaagaag atgctaactc gccagccaaa 300
28 aaccacattt cacttactgt ttttagagaa gattggctag agaactaac gctagaagca 360
29 acacttcgaa ttcattttaa agtagatagc ggtatggggc gtctcggtat tcgtacgact 420
30 gaagaagcac ggcgaaattga agcaaccagt actaatgatc accaattaca actggaaggt 480
31 atttacacgc attttgcaac agccgaccag ctagaaacta gttattttga acaacaatta 540
32 gctaagttcc aaacgatttt aacgagttta aaaaaacgac caacttatgt tcatacagcc 600
33 aattcagctg cttcattgtt acagccacaa atcgggtttg atgcgattcg ctttggtatt 660
34 tcgatgtatg gattaactcc ctccacagaa atcaaaacta gcttgccgtt tgagcttaaa 720
35 cctgcacttg cactctatac cgagatgggt catgtgaaag aacttgcacc aggcgatagc 780
36 gttagctacg gagcaactta tacagcaaca gagcgagaat gggttgacg attaccaatt 840
37 ggctatgcgg atggattgat tcgtcattac agtggtttcc atgttttagt agacggtgaa 900
38 ccagctccaa tcattggctg agtttgtatg gatcaaacca tcataaaaact accacgtgaa 960
39 tttcaaactg gttcaaaaagt aacgataatt ggcaaagatc atggtaacac ggtaacagca 1020
40 gatgatgccg ctcaatattt agatacaatt aattatgagg taacttggtt gttaaatgag 1080
41 cgcataccta gaaaatacat ccattag 1107
43 <210> SEQ ID NO: 2
44 <211> LENGTH: 368
45 <212> TYPE: PRT



RAW SEQUENCE LISTING

DATE: 08/30/2004

PATENT APPLICATION: US/10/660,194

TIME: 12:32:38

Input Set : N:\Crf3\RULE60\10660194.raw

Output Set: N:\CRF4\08302004\J660194.raw

```

46 <213> ORGANISM: Listeria monocytogenes
47 <400> SEQUENCE: 2
48   Met Val Thr Gly Trp His Arg Pro Thr Trp Ile Glu Ile Asp Arg Ala
49   1      5      10      15
50   Ala Ile Arg Glu Asn Ile Lys Asn Glu Gln Asn Lys Leu Pro Glu Ser
51   20      25      30
52   Val Asp Leu Trp Ala Val Val Lys Ala Asn Ala Tyr Gly His Gly Ile
53   35      40      45
54   Ile Glu Val Ala Arg Thr Ala Lys Glu Ala Gly Ala Lys Gly Phe Cys
55   50      55      60
56   Val Ala Ile Leu Asp Glu Ala Leu Ala Leu Arg Glu Ala Gly Phe Gln
57   65      70      75      80
58   Asp Asp Phe Ile Leu Val Leu Gly Ala Thr Arg Lys Glu Asp Ala Asn
59   85      90      95
60   Leu Ala Ala Lys Asn His Ile Ser Leu Thr Val Phe Arg Glu Asp Trp
61   100     105     110
62   Leu Glu Asn Leu Thr Leu Glu Ala Thr Leu Arg Ile His Leu Lys Val
63   115     120     125
64   Asp Ser Gly Met Gly Arg Leu Gly Ile Arg Thr Thr Glu Glu Ala Arg
65   130     135     140
66   Arg Ile Glu Ala Thr Ser Thr Asn Asp His Gln Leu Gln Leu Glu Gly
67   145     150     155     160
68   Ile Tyr Thr His Phe Ala Thr Ala Asp Gln Leu Glu Thr Ser Tyr Phe
69   165     170     175
70   Glu Gln Gln Leu Ala Lys Phe Gln Thr Ile Leu Thr Ser Leu Lys Lys
71   180     185     190
72   Arg Pro Thr Tyr Val His Thr Ala Asn Ser Ala Ala Ser Leu Leu Gln
73   195     200     205
74   Pro Gln Ile Gly Phe Asp Ala Ile Arg Phe Gly Ile Ser Met Tyr Gly
75   210     215     220
76   Leu Thr Pro Ser Thr Glu Ile Lys Thr Ser Leu Pro Phe Glu Leu Lys
77   225     230     235     240
78   Pro Ala Leu Ala Leu Tyr Thr Glu Met Val His Val Lys Glu Leu Ala
79   245     250     255
80   Pro Gly Asp Ser Val Ser Tyr Gly Ala Thr Tyr Thr Ala Thr Glu Arg
81   260     265     270
82   Glu Trp Val Ala Thr Leu Pro Ile Gly Tyr Ala Asp Gly Leu Ile Arg
83   275     280     285
84   His Tyr Ser Gly Phe His Val Leu Val Asp Gly Glu Pro Ala Pro Ile
85   290     295     300
86   Ile Gly Arg Val Cys Met Asp Gln Thr Ile Ile Lys Leu Pro Arg Glu
87   305     310     315     320
88   Phe Gln Thr Gly Ser Lys Val Thr Ile Ile Gly Lys Asp His Gly Asn
89   325     330     335
90   Thr Val Thr Ala Asp Asp Ala Ala Gln Tyr Leu Asp Thr Ile Asn Tyr
91   340     345     350
92   Glu Val Thr Cys Leu Leu Asn Glu Arg Ile Pro Arg Lys Tyr Ile His
93   355     360     365
95 <210> SEQ ID NO: 3

```

RAW SEQUENCE LISTING

DATE: 08/30/2004

PATENT APPLICATION: US/10/660,194

TIME: 12:32:38

Input Set : N:\Crf3\RULE60\10660194.raw

Output Set: N:\CRF4\08302004\J660194.raw

96 <211> LENGTH: 386

97 <212> TYPE: PRT

98 <213> ORGANISM: Listeria monocytogenes

99 <400> SEQUENCE: 3

```

100 Met Asn Asp Phe His Arg Asp Thr Trp Ala Glu Val Asp Leu Asp Ala
101 1 5 10 15
102 Ile Tyr Asp Asn Val Glu Asn Leu Arg Arg Leu Leu Pro Asp Asp Thr
103 20 25 30
104 His Ile Met Ala Val Val Lys Ala Asn Ala Tyr Gly His Gly Asp Val
105 35 40 45
106 Gln Val Ala Arg Thr Ala Leu Glu Arg Gly Pro Pro Pro Ala Val Ala
107 50 55 60
108 Phe Leu Asp Glu Ala Leu Ala Leu Arg Glu Lys Gly Ile Glu Ala Pro
109 65 70 75 80
110 Ile Leu Val Leu Gly Ala Ser Arg Pro Ala Asp Ala Ala Leu Ala Ala
111 85 90 95
112 Gln Gln Arg Ile Ala Leu Thr Val Phe Arg Ser Asp Trp Leu Glu Glu
113 100 105 110
114 Ala Ser Ala Leu Tyr Ser Gly Pro Phe Pro Ile His Phe His Leu Lys
115 115 120 125
116 Met Asp Thr Gly Met Gly Arg Leu Gly Val Lys Asp Glu Glu Glu Thr
117 130 135 140
118 Lys Arg Ile Val Ala Leu Ile Glu Arg His Pro His Phe Val Leu Glu
119 145 150 155 160
120 Gly Leu Tyr Thr His Phe Ala Thr Ala Asp Glu Val Asn Thr Asp Tyr
121 165 170 175
122 Phe Ser Tyr Gln Tyr Thr Arg Phe Leu His Met Leu Glu Trp Leu Pro
123 180 185 190
124 Ser Arg Pro Pro Leu Val His Cys Ala Asn Ser Ala Ala Ser Leu Arg
125 195 200 205
126 Phe Pro Asp Arg Thr Phe Asn Met Val Arg Phe Gly Ile Ala Met Tyr
127 210 215 220
128 Gly Leu Ala Pro Ser Pro Gly Ile Lys Pro Leu Leu Pro Tyr Pro Leu
129 225 230 235 240
130 Lys Glu Ala Phe Ser Leu His Ser Arg Leu Val His Val Lys Lys Leu
131 245 250 255
132 Gln Pro Gly Glu Lys Val Ser Tyr Gly Ala Thr Tyr Thr Ala Gln Thr
133 260 265 270
134 Glu Glu Trp Ile Gly Thr Ile Pro Ile Gly Tyr Ala Asp Gly Val Arg
135 275 280 285
136 Arg Leu Gln His Phe His Val Leu Val Asp Gly Gln Lys Ala Pro Ile
137 290 295 300
138 Val Gly Arg Ile Cys Met Asp Gln Cys Met Ile Arg Leu Pro Gly Pro
139 305 310 315 320
140 Leu Pro Val Gly Thr Lys Val Thr Leu Ile Gly Arg Gln Gly Asp Glu
141 325 330 335
142 Val Ile Ser Ile Asp Asp Val Ala Arg His Leu Glu Thr Ile Asn Tyr
143 340 345 350
144 Glu Val Pro Cys Thr Ile Ser Tyr Arg Val Pro Arg Ile Phe Phe Arg

```

RAW SEQUENCE LISTING

DATE: 08/30/2004

PATENT APPLICATION: US/10/660,194

TIME: 12:32:38

Input Set : N:\Crf3\RULE60\10660194.raw

Output Set: N:\CRF4\08302004\J660194.raw

```

145          355          360          365
146      His Lys Arg Ile Met Glu Val Arg Asn Ala Ile Gly Arg Gly Glu Ser
147          370          375          380
148      Ser Ala
149      385
151 <210> SEQ ID NO: 4
152 <211> LENGTH: 389
153 <212> TYPE: PRT
154 <213> ORGANISM: Listeria monocytogenes
155 <400> SEQUENCE: 4
156      Met Ser Thr Lys Pro Phe Tyr Arg Asp Thr Trp Ala Glu Ile Asp Leu
157      1          5          10          15
158      Ser Ala Ile Lys Glu Asn Val Ser Asn Met Lys Lys His Ile Gly Glu
159          20          25          30
160      His Val His Leu Met Ala Val Glu Lys Ala Asn Ala Tyr Gly His Gly
161          35          40          45
162      Asp Ala Glu Thr Ala Lys Ala Ala Leu Asp Ala Gly Ala Ser Cys Leu
163          50          55          60
164      Ala Met Ala Ile Leu Asp Glu Ala Ile Ser Leu Arg Lys Lys Gly Leu
165      65          70          75          80
166      Lys Ala Pro Ile Leu Val Leu Gly Ala Val Pro Pro Glu Tyr Val Ala
167          85          90          95
168      Ile Ala Ala Glu Tyr Asp Val Thr Leu Thr Gly Tyr Ser Val Glu Trp
169          100          105          110
170      Leu Gln Glu Ala Ala Arg His Thr Lys Lys Gly Ser Leu His Phe His
171          115          120          125
172      Leu Lys Val Asp Thr Gly Met Asn Arg Leu Gly Val Lys Thr Glu Glu
173          130          135          140
174      Glu Val Gln Asn Val Met Ala Ile Leu Asp Arg Asn Pro Arg Leu Lys
175      145          150          155          160
176      Cys Lys Gly Val Phe Thr His Phe Ala Thr Ala Asp Glu Lys Glu Arg
177          165          170          175
178      Gly Tyr Phe Leu Met Gln Phe Glu Arg Phe Lys Glu Leu Ile Ala Pro
179          180          185          190
180      Leu Pro Leu Lys Asn Leu Met Val His Cys Ala Asn Ser Ala Ala Gly
181          195          200          205
182      Leu Arg Leu Lys Lys Gly Phe Phe Asn Ala Val Arg Phe Gly Ile Gly
183          210          215          220
184      Met Tyr Gly Leu Arg Pro Ser Ala Asp Met Ser Asp Glu Ile Pro Phe
185      225          230          235          240
186      Gln Leu Arg Pro Ala Phe Thr Leu His Ser Thr Leu Ser His Val Lys
187          245          250          255
188      Leu Ile Arg Lys Gly Glu Ser Val Ser Tyr Gly Ala Glu Tyr Thr Ala
189          260          265          270
190      Glu Lys Asp Thr Trp Ile Gly Thr Val Pro Val Gly Tyr Ala Asp Gly
191          275          280          285
192      Trp Leu Arg Lys Leu Lys Gly Thr Asp Ile Leu Val Lys Gly Lys Arg
193          290          295          300
194      Leu Lys Ile Ala Gly Arg Ile Cys Met Asp Gln Phe Met Val Glu Leu

```

RAW SEQUENCE LISTING

DATE: 08/30/2004

PATENT APPLICATION: US/10/660,194

TIME: 12:32:38

Input Set : N:\Crf3\RULE60\10660194.raw

Output Set: N:\CRF4\08302004\J660194.raw

```

195      305      310      315      320
196  Asp Gln Glu Tyr Pro Pro Gly Thr Lys Val Thr Leu Ile Gly Arg Gln
197      325      330      335
198  Gly Asp Glu Tyr Ile Ser Met Asp Glu Ile Ala Gly Arg Leu Glu Thr
199      340      345      350
200  Ile Asn Tyr Glu Val Ala Cys Thr Ile Ser Ser Arg Val Pro Arg Met
201      355      360      365
202  Phe Leu Glu Asn Gly Ser Ile Met Glu Val Arg Asn Pro Leu Leu Gln
203      370      375      380
204  Val Asn Ile Ser Asn
205      385
207 <210> SEQ ID NO: 5
208 <211> LENGTH: 870
209 <212> TYPE: DNA
210 <213> ORGANISM: Listeria monocytogenes
211 <400> SEQUENCE: 5
212  atgaaagtat tagtaaataa ccatttagtt gaaagagaag atgccacagt tgacattgaa      60
213  gaccgcggat atcagtttgg tgatggtgta tatgaagtag ttcgtctata taatggaaaa      120
214  ttctttactt ataatgaaca cattgatcgc ttatatgcta gtgcagcaaa aattgactta      180
215  gttattcctt attccaaaaga agagctacgt gaattacttg aaaaattagt tgccgaaaat      240
216  aatatcaata cagggaatgt ctatttaca gtgactcgtg gtgttcaaaa cccacgtaat      300
217  catgtaatcc ctgatgattt ccctctagaa ggcgttttaa cagcagcagc tcgtgaagta      360
218  cctagaaacg agcgtcaatt cgttgaagg ggaacggcga ttacagaaga agatgtgcgc      420
219  tggttacgct gtgatattaa gagcttaaac cttttaggaa atattctagc aaaaaataaa      480
220  gcacatcaac aaaatgcttt ggaagctatt ttacatcgcg gggaacaagt aacagaatgt      540
221  tctgcttcaa acgtttctat tattaaagat ggtgtattat ggacgcatgc ggcagataac      600
222  ttaatcttaa atggtatcac tcgtcaagtt atcattgatg ttgcgaaaaa gaatggcatt      660
223  cctgttaaag aagcggattt cactttaaca gaccttcgtg aagcggatga agtgttcatt      720
224  tcaagtacaa ctattgaaat tacacctatt acgcatattg acggagttca agtagctgac      780
225  ggaaaacgtg gaccaattac agcgcaactt catcaatatt ttgtagaaga aatcactcgt      840
226  gcatgtggcg aattagagtt tgcaaaataa      870
228 <210> SEQ ID NO: 6
229 <211> LENGTH: 289
230 <212> TYPE: PRT
231 <213> ORGANISM: Listeria monocytogenes
232 <400> SEQUENCE: 6
233  Met Lys Val Leu Val Asn Asn His Leu Val Glu Arg Glu Asp Ala Thr
234      1      5      10      15
235  Val Asp Ile Glu Asp Arg Gly Tyr Gln Phe Gly Asp Gly Val Tyr Glu
236      20      25      30
237  Val Val Arg Leu Tyr Asn Gly Lys Phe Phe Thr Tyr Asn Glu His Ile
238      35      40      45
239  Asp Arg Leu Tyr Ala Ser Ala Ala Lys Ile Asp Leu Val Ile Pro Tyr
240      50      55      60
241  Ser Lys Glu Glu Leu Arg Glu Leu Leu Glu Lys Leu Val Ala Glu Asn
242      65      70      75      80
243  Asn Ile Asn Thr Gly Asn Val Tyr Leu Gln Val Thr Arg Gly Val Gln
244      85      90      95
245  Asn Pro Arg Asn His Val Ile Pro Asp Asp Phe Pro Leu Glu Gly Val

```

RAW SEQUENCE LISTING ERROR SUMMARY

DATE: 08/30/2004

PATENT APPLICATION: US/10/660,194

TIME: 12:32:39

Input Set : N:\Crf3\RULE60\10660194.raw

Output Set: N:\CRF4\08302004\J660194.raw

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 3

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/660,194

DATE: 08/30/2004

TIME: 12:32:39

Input Set : N:\Crf3\RULE60\10660194.raw

Output Set: N:\CRF4\08302004\J660194.raw